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REPORT on the SIXTH INTERNATIONAL STATISTICAL CONGRESS, *held at FLORENCE, from 29th September to 5th October, 1867.* By SAMUEL BROWN, F.S.S., *President of the Institute of Actuaries.*

[Read before the Statistical Society, December, 1867.]

THE object of the Statistical Society is not merely the collection of facts on any particular subject, but the collection of them in such a form as will enable the true law of their recurrence to be discovered. It has sometimes been said that statistics will prove anything. But this could only be because the student enters upon the inquiry with a prejudice in favour of some preconceived result, which induces him either to omit the classes of facts which favour the opposite side, or to give undue weight to those to which his opinion leans. Those who search for truth without reference to consequences, desire to collect all facts, which either by analogy or by difference will throw light upon the true laws of the probability of events, and enable us to discover the circumstances and conditions under which they will always occur again.

The members of this Society therefore naturally take an interest in congresses, the aim of which is to bring together the experience of men under whose official authority the collecting of facts which show the condition and progress of different countries is placed. The great questions of population, production, facilities of transport, of internal and foreign commerce, education, pauperism, crime, and others,—which indicate the healthy advance or decay of a nation, are on too large a scale to be entrusted to individual inquirers. To arrive at sound conclusions, it requires that the facts on which the judgment is to be formed should be gathered by the power of Government, by men having no special prejudices to please, and over so large an area that every subject of inquiry should not merely find a place according to its relative importance, but that the observations should be made under such varied circumstances that all its changing phases may be accounted for.

In this sense we owe a deep debt of gratitude to M. Quetelet, the distinguished mathematician and writer on statistics, for originating the Statistical Congress in Brussels in 1853. The skilful manner in which it was organised, the broad and intellectual view which was taken of its purposes, and the practical results

of the resolutions agreed to, have tended to make each succeeding similar congress a still greater success. The eminent men who were sent as delegates by the different Governments were not only those who had studied under the greatest advantages the important questions to be discussed, but who, by their official position, were able to see that the decisions of the congress were afterwards, as far as possible, carried into effect. It was a happy thought, too, which called to the discussions writers or thinkers on special subjects, who, having thoroughly examined any particular branch of inquiry, were enabled by their sagacity or experience in the minutest details, to suggest points which might have escaped the notice of others who had only considered them as subordinate parts of some larger research.

I need hardly point out to such of our members as have either attended these meetings or watched the results of them, what vast improvements have been made in the form and matter of Government publications of statistics since these congresses began. The first and most important subject is that of population, because all the comparisons of the state and progress of one country with another must be made dependent upon the relative population of each. How many students will recall the painful labours with which they formerly endeavoured to place the facts side by side. The classes of age, periods between the census, nature of occupation, causes of mortality, all differed, so that it was scarcely ever possible to compare the statistics of even two countries together without heavy preliminary work, even if it could be accomplished at all. But though much still remains to be done, an immense step has been taken in the right direction, as is shown by the valuable collection of population statistics formed by M. Quetelet, ably seconded by M. Heuschling, and recently published at the expense of the Belgian Government. If M. Quetelet or others of his colleagues will extend this kind of compilation to other branches of inquiry, such as commerce, finance, costs and profits of production, wages, manufacturing industries, displacement of labour by machinery, &c., they will be doing service to every nation, and prove that these congresses have produced results, not merely in the advance of science, but in practical benefits to the world at large.

At the close of the Statistical Congress at Berlin in 1863, a debate took place as to the next place of meeting, and it was left to the organisation committee to decide the question. They finally fixed upon Italy, and the city of Florence. The meeting there was as successful as any of the preceding, though the political circumstances of 1866 delayed the assembly till the present year,—in point of numbers, comprising not merely foreign delegates, but

eminent statesmen, writers, and learned professors of Italy, it exceeding any previous meeting. There were—

| At the Congress. | Year. | Members. |             | Total. |
|------------------|-------|----------|-------------|--------|
|                  |       | Natives. | Foreigners. |        |
| Bruxelles.....   | 1853  | 112      | 124         | 236    |
| Paris .....      | '55   | 133      | 131         | 264    |
| Vienna .....     | '57   | 464      | 77          | 541    |
| London .....     | '60   | 505      | 90          | 595    |
| Berlin .....     | '63   | 350      | 127         | 477    |
| Florence .....   | '67   | 632      | 85          | 717    |

The total number at Florence was 717; the next largest number being in London, 595. When the choice had been made in favour of Italy, the king appointed by decree, 25th January, 1866, a preparatory commission, under the presidency of the Minister of Agriculture, Industry, and Commerce, including some of the highest statesmen and scientific men of Italy, and to show the interest which he took in the subject, nominated his eldest son, His Royal Highness the Prince Humbert of Savoy, Prince of Piedmont, as general president of the congress.

By this commission the programme of the subjects to be discussed was prepared, and it is impossible to refer to it without mentioning the great services which were rendered to it by the ability, the earnestness, and the practical experience of Dr. Maestri, the head of the statistical department of Italy. Though many laboured with zeal, he may be considered the mainspring of the success of the congress. In the sketch of the programme which was drawn up by him, Dr. Maestri wisely advised that some of the subjects which had been commenced, but left unfinished at the previous congresses, should form the principal features of the debates. To these were added some topics suggested by an extensive correspondence with his colleagues in foreign Governments, in whose replies are contained hints worthy of deep reflection. Dr. Maestri further conferred a great boon on the students of statistics, by continuing an admirable work carried out by Dr. Engel for the Berlin Congress, being a *resumé*, under distinct heads, of all the subjects previously discussed, the resolutions passed, and the propositions deferred for further consideration at the former congresses. In the vast multitude of questions and their subdivisions, which have now been treated of, such a work is essentially necessary to know what points have been settled and how much still remains to be done. Though accessible in French, such a work ought to be translated into the language of every

country, since it is not only an index to the proceedings of the various congresses, but contains the principles and methods by which every statistical inquiry should be conducted to obtain uniformity in the results, and thus be enabled to examine facts for the laws which govern their occurrence, under the widest possible range of observation, and in their varied conditions in different countries.

During two days preceding the congress, several preliminary meetings of the foreign delegates were held, at which, amongst others, resolutions were passed in favour of a mutual interchange of official documents, of publishing in each country a brief summary of the larger statistical tables at a moderate price, somewhat in the form of our annual statistical abstract, and an index of documents which have appeared in past years, sufficiently descriptive to allow of their being consulted on any particular subject. It must be admitted that if such works were prepared for all countries in the French, as a general language for all, a vast impulse would be given to the scientific treatment of statistical questions.

The congress was opened on the 29th September last, by the Minister of Agriculture, Industry, and Commerce (S. de Blasiis) by an eloquent speech of welcome in Italian, followed the next day by a longer discourse, in which, after explaining how the recent changes in Italy had required reforms to be made in every branch of the public service, and original statistical researches of the highest interest, both in the provinces and towns, he expressed his hope that Young Italy would be found not to have degenerated from her ancient scientific renown; and that, revived by the breath of liberty, the people would awaken to maintain the former glories of Italian intellect.

At these two sessions the Minister of Agriculture was formally installed as president, the members of the preliminary commission, the official delegates, and M. Wolowski, Member of the Institute of France, as vice-presidents, and the secretaries appointed for the congress were M.M. Worms, Reymond, S. Brown, Mayr, De Thœrner, Bodio, Boni, and Casaglia.

As the list of foreign delegates comprises the names of the most eminent writers and officials in the statistical departments of each country, I here subjoin it. I have given the foreign titles in French as they appear in Dr. Maestri's report.

#### ALLEMAGNE.

*Autriche.*—Czernig (Son Excellence le Baron de), Conseiller intime actuel; Schmidt, Frédéric, K.K., Vice-Directeur de la Statistique Administrative.

*Bade.*—De Hardeck, Dr. Frédéric, Conseiller de Légation et Chef du Bureau Générale de Statistique.

*Bavière.*—De Hermann, Conseiller d'Etat, Directeur du Bureau de Statistique.

*Hambourg et Brême.*—Wersmann, Jean George, Sénateur.

*Hesse.*—Fabricius, Auguste, Conseiller, Supérieur des Aides, Directeur du Bureau de Statistique.

*Prusse.*—Engel, Dr. Ernest, Directeur du Bureau Royal de Statistique.

*Saxe Royale.*—Petermann, Louis Théodore, Directeur du Bureau de Statistique.

*Saxe Weimar, Meiningen, Altenbourg, Cobourg Gotha.*—Hildebrand, Bruno, Professeur, Directeur du Bureau de Statistique de Jena; Hopf, Conseiller aux Finances et Directeur de la Banque de Gotha.

#### AMERIQUE MÉRIDIONALE.

*Republique Argentine.*—Mantegazza, Professeur Paul.

#### EUROPE.

*Belgique.*—Quetelet, Adolphe, Directeur de l'Observatoire, Président de la Commission Centrale de Statistique; Visschers, Conseiller Supérieur des Mines et Membre de la Commission Centrale de Statistique; Heuschling, Chef de Division au Ministère de l'Intérieur et Secrétaire de la Commission Centrale de Statistique.

*Danemark.*—David, C. N., ancien Ministre, Conseiller de Conférence, Directeur du Bureau de Statistique.

*France.*—Legoyt, Alfred, Directeur du Bureau de la Statistique Générale de France; Yvernès, Émile, Délégué du Garde-des-sceaux; Wolowski, Louis, Délégué du Ministère de l'Agriculture, de l'Industrie, du Commerce, et des Travaux Publics, et de l'Institut de France; Worms, Émile, Membre de la Délégation Française.

*Grande Bretagne.*—Farr, Dr. William, Chef Surintendant du Département Statistique, Registrar-General Office, de Londres; Fonblanque, Albany W., Chef du Département Statistique Board of Trade, de Londres; Donnelly, William, Chef du Département, Registrar-General Office, d'Irlande; Balfour, Thomas Graham, Inspecteur-Général, adjoint Délégué du Ministère de la Guerre; Hammick, James Thomas, av. Membre du Directoire du Registrar-General Office.

*Norvège.*—Kiør, A. N., Directeur du Bureau de Statistique de Christiania.

*Pays-bas.*—De Baumhauer, Dr., Chef de Division au Ministère de l'Intérieur, Directeur du Bureau de Statistique.

*Roumanie.*—Bengesco II, Grégoire, ancien Ministre; Vulturesco, Grégoire, Chef du Bureau de Statistique.

*Russie.*—Ignatius, Charles, Secrétaire du Bureau de Statistique de Finlande; Mussnitzky, Rédacteur du Comité Central de Statistique; Seménov, Pierre, Conseiller d'Etat actuel, Procureur en Chef, Membre de la Section Statistique de la Société Impériale Géographique, Directeur du Comité Central de Statistique; Thœrner, Théodore, Conseiller d'Etat actuel, Délégué du Ministère des Finances; Wilson, Jean, Chef de la Section de Statistique au Département de l'Agriculture.

*Serbie.*—Jakchitch, Vladimir, Chef de Section de la Statistique Officielle au Ministère des Finances.

*Suède.*—Berg, Dr. Frédéric Théodore, Conseiller intime, Chef du Bureau Central de Statistique.

*Suisse.*—Pioda, J. B., Ministre Plénipotentiaire; Wirth, Max, Directeur du Bureau Fédéral de Statistique; Moynier, Gustave, Délégué de la Municipalité de Genève.

The countries which sent no delegates were Spain, the Pontifical States, Portugal, Turkey, Wurtemberg.

Besides the official delegates, there were many foreign representatives of scientific and other societies. The delegates who attended from this Society, Messrs. Farr, Hammick, Levi, and S. Brown, were favoured with a letter from the president (the Right Hon. W. E. Gladstone) to His Royal Highness the Prince Humbert, which, in the absence of the prince at Paris, was presented through the Minister of Agriculture, who presided at the congress, and treated the delegates throughout with marked courtesy and attention.

On the proposition of Dr. Maestri, notices were given of eminent statisticians deceased since the last congress. Dr. Engel paid a tribute to the memory of Dr. Casper, Dr. Baumhauer of Dr. Asher, M. David of Professor Mittermaier, M. Legoyt of M. de Guerry, Dr. Hermann of M. Böck, M. Vulturesco of Martianu.

The list of presidents, vice-presidents, and secretaries for each of the eight sections was also read, and the members of each section proceeded, in their respective rooms, to the discussion of the important subjects laid before them.

The mere enumeration of these subjects, with the names of the authors of the reports in the programme and the names of those who were appointed as reporters of the decisions of the sections to the congress, will recall to those who had the good fortune to be present, the able debates in the sections, and the eloquent and lucid addresses in which the conclusions were brought before the general meetings. The latter frequently comprised a summary of the arguments which led to the final resolutions, and, when published in the full report, will be found of the highest interest.

|  | Number<br>of<br>Members. | Reporters.           |                    |
|--|--------------------------|----------------------|--------------------|
|  |                          | In the<br>Programme. | To the Congress.   |
| 1ST SECTION.   |                          |                      |                    |
| <i>Theory and Technology of Statistics</i> .....   | 107                      |                      |                    |
| Reorganisation of the congress .....   | —                        | Visschers            | Engel              |
| Constitution of official statistics .....  | —                        | Correnti             | Castiglioni        |
| Official population of States .....  | —                        | Anziani              | Engel              |
| Laws of mortality and normal tables }<br>for assurance companies .....                             | —                        | Brioschi             | Brioschi           |
| Uniform nomenclature for statistics ....   | —                        | Maestri              | De-Luca            |
| 2ND SECTION.   |                          |                      |                    |
| <i>Topography</i> .....  | 73                       |                      |                    |
| Organisation of meteorological sta-<br>tions, and formation of a daily chart }<br>for Europe ..... | —                        | Cantoni              | Cantoni            |
| Nature, ownership, and regulations }<br>for supply of water .....                                  | —                        | Pareto               | Pareto             |
| 3RD SECTION.   |                          |                      |                    |
| <i>Agricultural Statistics</i> .....   | 116                      |                      |                    |
| Net revenues of cultivation and value }<br>of products.....  | —                        | Rabbini              | Rabbini            |
| Cattle; production; imports; exports .....   | —                        | Lampertico           | Lampertico         |
| Economy of the credit foncier (land }<br>loans) .....  | —                        | Restelli             | Wolowski           |
| 4TH SECTION.   |                          |                      |                    |
| <i>Communal Statistics</i> .....   | 124                      |                      |                    |
| Demography (boundaries) and eco-<br>nomy of communes (government) }                                | —                        | Correnti             | Vulturesco         |
| 5TH SECTION.   |                          |                      |                    |
| <i>Statistics of Monetary and Paper Cur-<br/>rency</i> .....                                       | 52                       | Allievi              | { Pascal<br>Duprat |
| Uniformity of weights and measures ....  | —                        | „                    | Allievi            |
| 6TH SECTION.   |                          |                      |                    |
| <i>Moral and Judicial Statistics</i> .....   | 140                      |                      |                    |
| The poor .....   | —                        | Maestri              | Errera             |
| Causes of offences against the law .....   | —                        | Messedaglia          | Yvernès            |
| 7TH SECTION.   |                          |                      |                    |
| <i>Army Medical Statistics</i> .....   | 41                       | Baroffio             | Baroffio           |
| 8TH SECTION.   |                          |                      |                    |
| <i>Education</i> .....   | 144                      |                      |                    |
| Schools of fine art .....  | —                        | Maestri              | Villari            |
| Archives .....   | —                        | Bonaini              | Muller             |
| Libraries .....  | —                        | Gar                  | { Bongi<br>Martini |
| Museums .....  | —                        | Fiorelli             | Gennarelli         |

The report upon hydrography was presented at the third general meeting, and the resolutions unanimously adopted. They are too long to quote in full, but are to the following effect:—

1. That it is very desirable for each State to publish the facts



relating to the distribution and the levels of the water supplies, distinguishing what is actually utilised or left to run waste, also in their physical aspect, and the use that can be made of them for sanitary purposes in industry and in commerce; the average quantity supplied to each inhabitant for domestic uses and for public municipal objects; the dimensions of supply pipes, volume of water and rate of flow; finally, the levels at the source and of the country over which they flow; the rapidity and volume of the streams; the quantity given out in a year and in each month; the variation according to seasons; and the extent to which they are utilised in agriculture and industry.

M. Allievi at the same meeting reported the resolutions of the Fifth Section on weights and measures, which, after a few eloquent remarks from M. Wolowski that France, without being too proud of originating a universal system, might still felicitate herself on contributing to the great benefits which have been and will be thereby secured to the human race, were passed unanimously.

1. The Congress of Florence, confirming the resolutions of all the previous congresses, recommends the universal adoption of the metric system.

2. That the delegates from countries in which it is not yet adopted, be invited to form national associations to make known its advantages, and to use every means of obtaining the desired end of unity of weights and measures amongst all nations.

3. That these associations, and the one formed in London, should unite to obtain the materials for a report to be made to the next congress on the progress of the system, and on the difficulties it has to encounter.

4. That the knowledge of the metric system should be more diffused, and for this purpose the congress recommends that it should be taught in the Government schools and by popular publications, and generally urges the means of instruction suggested in M. Jacobi's report.

The question of supply of cattle gave rise to an animated debate on the fourth day, in which M.M. Carpi, David, Pioda, Rabbini, Leone Levi, Arrivabene, Lassi, Pareto, and Predieri took part, whose objections were replied to by S. Lampertico, whose propositions to the following effect were approved.

1. That the enumeration of cattle should be made at frequent intervals, not exceeding ten years, and should, as nearly as possible, coincide with the census of the people.

2. That each proprietor should receive schedules on which to make his own separate return.

3. That the schedules should distinguish horses, oxen, pigs, sheep, and goats, specially noting the breed, age, and destination.

4. Establishments for improving the breed, their expenses, regulations, &c.

5. Information as to diseases, whether contagious or infectious, and the mortality they have occasioned, distinguishing the breed, age, and destination.

6. The number and kinds of animals should be stated absolutely as well as relatively to the surface unit of the country and to the population.

On the same day M. Cantoni gave in the report on meteorology, which Dr. Engel objected to on the ground that it would greatly add to the labours of statistical departments by extending the sphere of observations to facts which appeared more strictly to belong to the natural sciences. But after some remarks by Dr. Farr in support of the propositions of the Second Section, they were passed; proposing to the congress that the statistical department of Italy should be requested to invite the directors of the meteorological stations in different countries to arrange amongst themselves the means and the bases upon which they could interchange observations made at a certain number of points in each country, so as to obtain the most complete general view of the whole.

The statistics of communes, debated in the Fourth Section, led to a very lively discussion and great differences of opinion at the general meeting. The resolutions finally adopted would include very minute inquiries into the boundaries of communes, density of population, their economical condition, form of government, finance, sanitary measures, and the authorities under which they are carried out, and comparisons of the annual statistics of great towns. In the tendency which has for many years past been observed amongst the population of this country to congregate in large towns, such carefully collected facts on a uniform plan may afford the most valuable materials for the changes in municipal governments, new regulations, and improvements which the times require.

Several valuable suggestions by M. Castiglioni, on the formation of statistical bureaux, aided by committees of men of science and practical knowledge in every country, were referred to the preparatory commission of the next congress. But the important question of the future organisation of the congress and its statutes, on which M. Visschers had sent in a most able report, was at last deferred for consideration at some future congress.

At the sixth general meeting M. Quetelet presented the very important work, suggested by him to the Congress at London, on the comparative statistics of populations in different States, to which I have alluded; and it is gratifying to know that it is to be resumed with the aid of some of his distinguished Government colleagues for other branches of inquiry.

The report on unity of money was introduced by M. Pascal Duprat, and supported by M. Wolowski, though Professor Leone Levi regretted that the Section had not recommended something more definite. The resolution passed was to the effect—

- “ That the congress, approving the objects of the monetary convention at Paris, of 23rd December, 1865, concurs in all the measures which tend to bring to a common type, or to analogous types, with easy means of comparison, on the basis of a decimal system, the different monetary systems at present in use.
- “ That the official statistical bureaux be invited to collect the statistics of money circulations, and of the precious metals on which they depend.”

The heads of these inquiries are:—

1. *Production*.—Gold and silver; in reference to the former whether obtained by extraction or washing; note the places of production; the weight and value of the annual produce.

2. *Distribution*.—Importation and exportation; countries from and to which it passes; whether by land or sea; in what form conveyed; whether in ingots or coined, objects of art, or simple industrial products; to give a monthly table of import and export under these heads.

3. *Consumption*.—Coinage; pieces of all kinds legally current in the State; annual returns of the mint; withdrawal of old coin; quantities of precious metals used by goldsmiths and jewellers; similar statistics of what is absorbed in industries of all kinds; estimates of annual loss.

The general assembly afterwards agreed to a proposition introduced by M.M. David and Baumhauer, “ that the heads of the statistical departments in each country should be requested to lay before the next congress tables of the measures, weights, and coins of each country, with their reduction into those of the other principal States represented.”

However interesting all these inquiries are, it is evident that the resolutions do not, so far as monetary values are concerned, go far towards pressing for the unity which is so desirable for statistical values. As the monetary convention already extends to more than seventy millions of people, it would be of the utmost advantage if the two greatest commercial nations—Great Britain and the United States—could effect those slight changes in the value of their monetary units, which would bring them within the terms of the convention, and thus add sixty millions more people using but one system of weights and measures, and one system of money values. Others would soon follow.

The proceedings of the Eighth Section, and the discussions on the statistics of the fine arts, archives, libraries, and museums, resulted in a long series of resolutions, in some of which it is difficult to distinguish the purely statistical from the artistical view of the information demanded. But if all the facts required can be obtained, there will no doubt exist the means of reducing to the form of tables a considerable number of the facts, the remainder serving rather for the elucidation of them, or as contributions to the history of art and literature.

Part of the propositions in the Third Section, as to the methods of obtaining a general form of survey of land, were referred to the next congress; also as to a uniform nomenclature for crops of various kinds. The deductions necessary to be made from profits of agriculture by atmospheric causes, drought, hail, inundations, for expenses of cultivation—such as wages, animal power and its cost, repairs to agricultural implements and buildings, irrigation, manure, food, or other customary allowances to labourers in lieu of wages, &c., should also be scheduled. Further work was prepared for the next congress by recommendations to obtain the statistics of loans upon land, their amounts, interest, nature of repayment, whether by terminable annuities, and if so, the amount repaid and amount remaining due, &c. M. Wolowski spoke with his usual ability in introducing these reports.

At the seventh and last meeting, there still remained several most important reports to present. That of the Sixth Section, on criminal and judicial statistics by M. Pierantoni, suggested the collection of judicial statistics under the principal causes of crime, the number and results of crimes of violence, according to the instruments or means used to effect them; the number of the accused, with the age, sex, civil condition, degree of instruction, religion, and domicile, whether town or country. Another resolution, was introduced to obtain from the statistics of prisons and penitentiaries, whether the prisoner had been brought up in any charitable institution, if so, whether it was supported by Government or private patronage; for what time he was under its surveillance; what was his conduct and occupation there, and why he was withdrawn from it.

The report of the Seventh Section, over which Dr. Graham Balfour so ably presided, went into the details of medical statistics for the army and navy, and was brought up by M. Baroffio. Besides requiring returns of diseases and mortality, according to age, duration of service, number of days of sickness, &c., the congress renewed the resolution passed at the Berlin Congress, relative to the care of the wounded in time of war, and to an

inquiry into the means of providing more efficient sanitary service for armies in campaign.

Two or three important questions were introduced from the First Section, one as to the census, that each individual should state whether he is born in the commune or district; if not, where, and how long he has been in his present residence; if the head of a family, or his wife, or children, who have not yet a domicile of their own, are absent, it should be stated how long absent, and the name of the place and country to which any individual is gone. It was further recommended that the end of the year should be chosen for the census, as the time when there are the fewest absentees, &c.

Another report from this Section by M. de Luca, to obtain uniformity in statistical language, recommended that the directors of official statistics in different countries should be asked to undertake this important task, and report the results to a future congress, and that in all statistical publications the exact definitions should be given of the terms newly employed, or the ancient terms which may be used in a new sense.

The last report was given in from this Section by M. Brioschi, with resolutions which were approved, (1) that every Government should publish normal tables suitable for the operations of the different classes of life assurance companies, and which, being revised and republished whenever the tables of mortality are corrected, may serve as a guarantee to the public for their safety and sufficiency; (2) that the Governments should obtain from the assurance companies their mortality experience, and publish the results.

Two or three isolated resolutions were also passed at some of the meetings, the most important of which is one moved by M. Quetelet, to whose intellectual labours the study of statistics owes so much of its scientific character. The resolution was unanimously adopted in the First Section, and as cordially approved by the general assembly. "Considering the importance and extension of statistical questions, based on mathematics, and that in all civilised nations illustrious geometricians have applied the calculus of probabilities to the elucidation of these questions, it is very desirable that at future congresses there should be constituted a special section charged with the duty of examining statistical subjects in their direct relation with the theory of probabilities." This is a practical step towards utilising the immense mass of information which will be obtained, if even a small part of the resolutions of the previous congresses be carried out by the respective Governments, so as to obtain the details on a uniform plan. It is difficult to say to what statistical subjects the theory of

probability does not apply, and the results may be of the highest importance. From no one would the suggestion made be received with more respect than from the distinguished writer M. Quetelet, whose works on probabilities and their application are known and appreciated throughout Europe.

The actual labours of the congress were concluded on the seventh day. After an adjournment for two hours, Dr. Farr introduced the question of the place to be fixed for the next meeting. Dr. Baumhauer, on behalf of the Government of the Netherlands, and M. Pioda, the official delegate from Switzerland, in the name of the Federal Council, pressed the claims of their respective countries, and the hospitable invitations of their Governments to receive the members of the congress at their next meeting. It was left to the preparatory commission to fix the locality and time.

His Excellency the Minister of Agriculture then, in a short but eloquent speech, pointed out the importance of the discussions just closed, and the advantage of bringing so many minds to bear on these great scientific questions, looking at them from different points of view, and eliminating the laws of social phenomena. He trusted that Italy would profit by the vast and new horizon opening up to her for statistical researches, and that the illustrious foreigners whose presence they had so much appreciated amongst them, would return to bear witness that Italy in her revival was giving herself with ardour to the highest pursuits of science and the severest studies of pure intellectual truth.

It is impossible to close this brief account without recalling with pleasure the kindness and courteous attentions which the foreign members met on all sides. His Majesty King Victor Emmanuel II received the foreign delegates at the Pitti Palace, and invited them to a grand banquet at the close of the congress. The President of the Ministerial Council (S. Ratazzi) and the Minister of Agriculture, Industry, and Commerce (S. De Masiis), gave a magnificent reception to several hundred persons in the historical Palazzo di Podesta, now a national museum of rare antiquities. The syndic and municipality of Florence welcomed them with musical entertainments at La Pergola, and the municipal palace in the Cascine. The renowned city of Bologna, through its syndic the Marquis di Pepoli, offered its hospitality, and by all Italians, whether statesmen, professors, or men of science, the utmost courtesy and genuine kindness were shown to their visitors.

Even if these statistical congresses had no other object than to bring together thoughtful men with the same pursuits, combining their experience, and knowing where to look for mutual aid or special knowledge in any particular inquiry, they would effect a vast amount of good by laying down a broad and uniform, instead

of an individual and narrow, basis of research in each question. But they do more than this. By the united action of official authorities, they bring the resources of each Government to the collection of statistics in such a form that no labour is thrown away, and no expenses uselessly incurred. The great questions which concern the growth, social condition, and permanent prosperity of nations may be elucidated by comparisons on the grandest scale and under different conditions, and the knowledge of the true laws which govern them thus reduced to a science, and applied to extend the domains of human knowledge and advance the social progress of all countries.

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